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REMARKS

This document is in response to the Office Action dated September 20, 2005.

The Examiner has required restriction to one of the following inventions:

1. Claims 1-19 drawn to a method for manufacturing a translucent laminate,
2. Claim 20 drawn to a translucent laminate. Applicant has elected Claims 1 to 19 drawn to a method for manufacturing a translucent laminate. This election is made with traverse.

Claim 1 has been amended for clarity. Claims 10, 16, 18 and 19 have been amended to set forth times and temperatures in accordance with the specification. Claim 18 has also been amended to the specific use of a roller with grooves on its surface. New claims 21 - 27 have been added to claim specific features of the invention.

The Examiner has rejected Claims 1-19 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. With respect to Claims 1, 18 and 19 the words "consisting of" have been changed to "comprising" in the preambles of those claims.

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Regarding Claims 2-5 Applicant has inserted the word "strands" after "warp and fill" in Claims 1, 18 and 19, as suggested by the Examiner. Other amendments have been made in the claims for clarity.

Claims 1-11 and 16-18 were rejected as being unpatentable over the admitted prior art in view of the collective teachings of Eysel, et al., White, and further in view of the collective teachings of Price and Cheong. This rejection is respectively traversed. With respect to Claim 1 Applicant has set forth that it is known in the art to make a translucent laminate comprising a textile middle layer disposed between two cover layers made of translucent films, as described in Eysel, et al., U.S. Patent No. 6,468,928.

Applicant has also set forth that another known method for making the translucent laminates is to use adhesives, in which the three layers are brought together at a single point in the process, one or more of the layers having been coated with adhesive. Applicant has not stated in the description of the prior art that any known method comprises coating the scrim with an adhesive and heating and pressing the scrim, adhesive and outer layers to form a laminate.

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Eysel, et al., describes a textile net middle layer between two cover layers of translucent films. Eysel, et al., does not describe the use of any adhesive.

White describes a scrim layer disposed between an inner protective layer of PVC and a substrate layer of PVC. White describes applying the inner protective layer to the scrim layer with a plastisol adhesive using conventional lamination techniques, Column 5, lines 17 to 21. White then describes applying the polymeric substrate layer by laminating it to the scrim layer with a plastisol adhesive, Column 5, lines 22 to 27. White describes these applications of the protective layer and the substrate layer as two separate events and does not describe where the plastisol adhesive is placed, other than saying "using conventional lamination techniques".

As stated by Applicant in the application, the presence of excess adhesive in a process such as described by White leads to degraded translucence in the finished laminate. Applicant states page 3, line 15, that one reason for the lessening of the translucence can be the accumulation of excess adhesive. Applicant objects to the Examiner's statement that Applicant has stated it is known in the art that excess adhesive becomes trapped in the interstices of the scrim thereby degrading the translucency of the laminate. Applicant has not stated that that feature was known in

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the prior art. Applicant has stated that he has determined that one reason for the lessening of the translucence can be the accumulation of excess adhesive. Applicant has not stated that this was known and therefore acknowledged in the prior art.

The Examiner then states that it is known in the scrim art to coat the scrim with an adhesive and then remove adhesive from the interstices of the scrim, so as to reopen any interstices that may have been occluded during the coating process, as taught by the collective teachings of Price and Cheong.

Price however is involved in the manufacture of industrial conveyor belts and endless cloth used in paper manufacturing, and more importantly, to a structurally integrated yet porous laminated structure, see the abstract of Price. Price states that he is trying to produce a porous fabric, in order to maximize seam area porosity, column 4, lines 69 to 73. Price wants to achieve a porous structure. Price goes on to say that a more porous laminate may be perfected if, after the bonding agent is applied to the inner fabric layer and before the outer fabric layer and scrim material are subjected to the adhesive and positioned on the inner layer, any excess adhesive is removed from the interstices of the inner layer by blowing air under pressure through the fabric. As can be seen, Price is manufacturing a laminate made from layers of various fabric. There is no translucent layer involved and Price

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is removing adhesive from the inner layer of fabric not the scrim. Price goes on to say column 7, lines 1 to 5, that after the outer layer and scrim material have been encapsulated with the bonding agent and positioned on the inner layer, any additional bonding agent which exists in the interstices of the composite structure may be similarly removed.

In Applicant's structure of translucent layers on opposite sides of the scrim, no adhesive could be removed after the laminate is put together. Because Price is manufacturing a very porous combination of layers of fabrics only, he can remove adhesive after all the layers are combined. His teachings have no application to Applicant who is making a fluid impermeable laminate for objects such as above-ground swimming pools. Applicant's products must not only be impermeable but strong enough to withstand the pressure of an inflatable swimming pool filled with a great deal of water.

Referring to Cheong, Cheong is teaching the manufacture of a net wound dressing, also needing it to be porous, similar to Price. Cheong starts with a net dressing in which the net substrate is encapsulated in a hydrophilic tacky resin, the coating on the net substrate leaving the majority of apertures in the net substrate unoccluded, Col. 2, lines 57-62.

Cheong is manufacturing a porous net fabric, which has been encapsulated in a tacky resin. There are no translucent layers

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applied to each side of a scrim and there is no need for strength nor does the product have any fluid impermeability. Thus, it would not be obvious to one skilled in the art of making fluid impermeable laminates, to look at the porous fabrics of Price or Cheong, to remove adhesive from the interstices of the scrim, before bonding the scrim to outer vinyl layers.

Claim 1 has been amended to point out that Applicant's process is to manufacture a fluid impermeable translucent laminate, coat only the scrim with the adhesive, remove adhesive from the interstices between the warp and fill strands of the scrim, then heat the scrim and adhesive to a suitable temperature, heat the outer vinyl layers to a suitable temperature and pass the scrim and vinyl layers together between adjacent rollers under sufficient pressure and suitable temperature to bond the outer vinyl layers to the scrim. No reference or combination of references cited by the Examiner discloses or teaches this method. No reference cited by the Examiner teaches applying the adhesive solely to the scrim, and in fact, most of the references apply the adhesive to all of the layers or are silent as to which layers receive adhesive.

Regarding Claims 2-5, the Examiner states that the materials claimed are known in the art. However Claims 2-5 are dependent upon Claim 1, which is patentable as discussed above.

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Regarding Claim 6, the Examiner states that selection of the particular plastisol adhesive would have been within the purview of the skilled artisan, however Claim 6 is dependent upon Claim 1, which is patentable as discussed above.

Regarding Claims 7-9, the Examiner states that selection of particular vinyl layers would have been within the purview of the skilled artisan and are known in the art. However Claims 7-9 are dependent on Claim 1, which is now patentable as discussed above.

Regarding Claims 10-11, the Examiner states that selection of a particular thickness for the vinyl layers would have been within purview of the skilled artisan and that the claimed ranges lie within ranges taught by Eysel. Claims 10-11 are dependent upon Claim 1 which are now patentable as discussed above.

Regarding Claim 16, the Examiner has indicated that selection of a particular device for heating the vinyl layers, scrim and adhesive and selection of a heating time and temperature would have been within the purview of the skilled artisan depending on the materials used. However Claim 16 is dependent upon Claim 1 which is patentable as set forth above.

Regarding Claim 17, the Examiner states it would have been obvious to the skilled artisan to tint the laminate because such is known, as taught by the collective teachings of Eysel and White.

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However Claim 17 is dependent on Claim 1, which is patentable as set forth above.

With respect to Claim 18, the Examiner states that this Claim is a combination restating all of the limitations set forth in Claim 1, 6 and 16. Claim 18 has been amended to specifically point out that the adhesive is removed from the interstices between the warp and fill strands, by passing a roller having grooves on its surface, which correspond to the size and pattern of the scrim, over said scrim forcing the adhesive out. This feature is not shown in any of the references and thereby Claim 18 is patentable in view of the references cited.

The Examiner has rejected Claims 12-15 and 19 as being unpatentable over the admitted prior art, the collective teachings of Eysel and White and the collective teachings of Price and Cheong as applied to Claim 1 above and further in view of Gray, et al. Claims 12-15 are dependent upon Claim 1 and Claim 19 includes all of the limitations set forth in Claim 1 and therefore these Claims are patentable over the cited art as set forth above with respect to Claim 1.

Regarding Claims 12-13 the Examiner has stated that selection of a particular denier for the scrim would have been within purview of the skilled artisan and the claimed ranges are set forth in Gray. The Examiner has also rejected Claims 14-15 on the same



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basis. As stated Claims 12, 13, 14, and 15 are all dependent upon Claim 1, which is patentable as set forth above.

The Examiner has stated that Claim 19 is a combination of restating all of the limitations set forth in Claims 1, 6, 12-16 and 18. Claim 19 is an independent Claim, which includes all of the limitations set forth in Claim 1 and is therefore patentable as discussed above.

Claims 1-2, 6-9 and 16-18 were rejected as being unpatentable over White in view of the collective teachings of Price and Cheong and further in view of the admitted prior art. With respect to Claim 1 the teachings of White were discussed in detail above with respect to Claim 1. As stated above, how White teaches making a translucent laminate comprising a scrim disposed between two outer vinyl translucent layers. White is silent as to removing adhesive from the interstices of the scrim and heating and pressing the scrim adhesive and vinyl layers to laminate the same. The Examiner goes on to state that it is known in the scrim art to coat the scrim with an adhesive and then remove adhesive from the interstices of the scrim so as to reopen any interstices that may have been occluded during the coating process, before bonding other layers to both sides of the scrim, as taught by the collective teachings of Price and Cheong. Price and Cheong have been discussed above and as stated, both are manufacturing a quite

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porous product manufactured of layers of fabric without vinyl layers at all. As stated above, those references teach removal of adhesive after the final bonding of the cloth layers, since they are so porous adhesive can be removed after the final bonding process. This is opposite to the teachings of Applicant, since once the translucent layers are fixed it is impossible to remove adhesive.

The Examiner states again, that the admitted prior art acknowledges the shortcomings associated with adhesive blocking interstices of the scrim disposed between vinyl layers in a translucent laminate. However, as stated above, this is not admitted prior art but a discovery made by Applicant in which Applicant has invented a process to cure that problem to increase the translucence of the final material.

The Examiner goes on to state that White teaches bonding the scrim and final layers using "conventional lamination techniques" also as taught by the admitted prior art. As set forth above, White fails to teach anything about removal of excess adhesive, to increase translucence, which is the basis of Applicant's invention.

The Examiner indicates that regarding Claim 2, White teaches the scrim can be polyester and regarding Claim 6, selection of a particular plastisol adhesive would have been within the purview of the skilled artisan and regarding Claim 7 and 9 White teaches vinyl

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layers. However Claims 2, 6, and 7 to 9 are all dependent on Claim 1, which is patentable as set forth above.

Regarding Claim 16 the Examiner states that the selection of a particular device for heating the vinyl layers, scrim and adhesive and selection of heating time and temperature would have within the purview of the skilled artisan. The Examiner also states that heating in an oven and separately heating layers before bringing them together for lamination is well known and conventional. As stated in reference to the prior art, page 3, lines 4-6 of the specification, "the three layers are again brought together at a single point in the process, one or more of the layers having been coated with adhesive". None of the prior art references cited discloses coating the scrim only with adhesive and removing excess adhesive from the interstices of the scrim prior to bringing the three layers together. The acknowledged prior art is not specific as to which layer or layers is coated with adhesive and coating the outer layers as well as the scrim is common prior art. Applicant's invention in creating a more translucent final product involves coating only the scrim layer, going through the adhesive removal step and then bonding the three layers together, this is not taught anywhere in the admitted prior art or in the references cited.

Regarding Claims 16 and 17, those are dependent on Claim 1 and are patentable for the reasons set forth above and in connection

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with the discussion set forth just above. With respect to Claim 18, it has been pointed out above that 18 has been amended to specifically set forth the roller having grooves on its surface which is not taught by any of the prior art references.

The Examiner rejected Claims 3-5 as unpatentable over White, the collective teachings of Price and Cheong, in further view of the admitted prior art and in further view of Eysel, et al. This rejection is respectively traversed. The Examiner states that White teaches the scrim may be polyester and that the skilled artisan would have appreciated the reference not being limited to such because the material of the scrim is not critical to the invention. However, Price and Cheong are manufacturing an extremely porous final product, which have uses and require attributes far different than the strength required in Applicant's product and the fluid impermeability required by Applicant's product. Price and Cheong's products are neither strong nor are they fluid impermeable and are specifically not meant to be so.

The Examiner has rejected Claims 12-15 and 19 as being unpatentable over White in view of the collective teachings of Price and Cheong, in further view of the admitted prior art and in further view of Gray, et al. As stated above Claims 12, 13, 14, and 15 are dependent on Claim 1 and will be allowable on Claim 1 being allowable. Claim 19 also includes the limitations set forth

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in Claim 1 and is allowable for the same reasons as set forth in the discussion of Claim 1.

In view of the amendment to the claims and the arguments presented herein, Applicant urges that the claims are now in condition for allowance and early allowance is respectfully requested.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Sanford Astor (Reg. No. 20,748) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Respectfully submitted,

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By 

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